

DETAILED ACTION

Claim Objections

1. Claim 50 is objected to because of the following informalities: line 3 of the claim recites "by p projection" which appears to be a typographical error. Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
3. Claim 49 and 50 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
4. Claim 49 recites the limitation "the diaphragms" in line 1 of the claim. There is insufficient antecedent basis for this limitation in the claim.
5. Claim 50 recites the limitation "the diaphragms" in line 1 of the claim. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1, 4, 11, 20, 41, 44, 52 and 53 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,169,029 to Behar et al. (Behar).

Behar shows a dispensing device (Fig. 1), comprising a casing (100) configured to be hand held (Col. 3, ll. 11-17), a mixing chamber (10a), a port (within 1), configured to receive rigid two containers (7a, 7b) for a plurality of chemicals (see abstract) such that when the two containers are in the port, the two containers move with movement of the casing (Fig. 5 and Col. 3, ll. 11-17). The dispensing device includes a flow generator (8a, 8b) located between the mixing chamber and port (Fig. 5) and does not include external tubing (Fig. 1).

Regarding claim 11, Behar discloses that the flow generator pumps the chemicals out of the containers at different rates (Col. 3, ll. 19-27).

Regarding claim 41, Behar shows a discharge nozzle (3) coupled to the mixing chamber.

Regarding claim 44, Behar discloses that the one or more containers are configured so the one or more containers are inserted into the port by pushing on the containers and are removed from the base by pulling on the containers, without use of any tool (Col. 4, ll. 40-51).

Regarding claims 52 and 53, Behar discloses one or more compartments (Fig. 3, created by supports 1b) in the port for receiving the one or more containers and the compartments are enclosed by the casing (Fig. 1).

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4. Claims 36 and 38 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 3,302,832 to Hardman et al. (Hardman).

Hardman shows a dispensing device (Fig. 1), comprising a mixing chamber (92), a flow generator (54) and a removable base (16) including a motor (19) that does not come into contact with the chemicals (drill 16 only drives gears).

Claim Rejections - 35 USC § 103

8. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

9. Claims 1, 2, 4, 8, 9, 11, 15, 20, 25, 41, 52 and 53 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,273,260 to Bush in view of U.S. Patent No. 4,854,482 to Bergner.

Bush shows a dispensing device (Fig. 1), comprising a casing (10.1) configured to be hand held (Col. 7, ll. 61-65), a mixing chamber (106.1), a port (100.1), configured to receive two containers (114.1, 116.1) for a plurality of chemicals (Col. 4, ll. 55-63). The dispensing device includes a flow generator (26.1) located between the mixing chamber and port (Fig. 1).

Bush fails to disclose that the containers move with the casing when attached to the port or that the dispensing device does not include external tubing.

Bergner shows a dispensing device with no external tubing (Fig. 1), a casing (1) configured to be hand held (Col. 2, ll. 47-50), with a mixing chamber (4), a port (1b, 1c) configured to receive two containers (6, 7) that move with the casing, with two

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chemicals (8, 9), and a flow generator (14, 15) to induce flow of chemicals from the containers toward the mixing chamber. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have manufactured the dispensing device of Bush with a port that surrounds and carries the containers and with no external tubing as taught by Bergner in order to improve portability by having a self contained device not limited by the length of a tube and eliminate risk of a tube being caught on an object and dislodged during use.

Regarding claim 2, Bush shows a pump mechanism (50.1, 51.1) for each of the chemicals and a single motor (70.1) for the pump mechanisms.

Regarding claim 8, Bush as modified by Bergner is silent with respect to the weight of the device. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have limited the weight of the device to less than 5 kilograms to increase portability as desired by both Bush and Bergner.

Regarding claim 9, Bush shows a single flow generator (50.1, 51.1) for each of the chemicals in separate flow paths (Fig. 2).

Regarding claim 11, Bush discloses that the flow generator pumps the chemicals out the containers at different rates (Col. 10, ll. 38-48).

Regarding claim 41, Bush discloses a discharge nozzle coupled to the mixing chamber (Col. 3, ll. 1-6).

Regarding claims 52 and 53, Bush as modified by Bergner results in one or more compartments (1b and 1c of Bergner) enclosed by the casing (Bergner, Fig. 1).

10. Claims 1, 4, 8-12, 15, 20, 25, 41-43, 52 and 53 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 3,232,585 to Garbarino et al. (Garbarino) in view of Bergner.

Garbarino shows a dispensing device (Fig. 1), comprising a casing (57) configured to be portable and body carried (Col. 1, ll. 26-28), a mixing chamber (24), a port (within 57), configured to receive two rigid containers (12, 14) for a plurality of chemicals (Col. 1, ll. 8-12) such that when the two containers are in the port, the two containers move with movement of the casing (Fig. 2). The dispensing device includes a flow generator (20a, 20b) located between the mixing chamber and port (Fig. 1).

Garbarino fails to disclose that the casing is hand held or that the dispensing device does not include external tubing.

Bergner shows a dispensing device with no external tubing (Fig. 1), a casing (1) configured to be hand held (Col. 2, ll. 47-50), with a mixing chamber (4), a port (1b, 1c) configured to receive two containers (6, 7) with two chemicals (8, 9), and a flow generator (14, 15) to induce flow of chemicals from the containers toward the mixing chamber. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have reduced the size of the dispensing device of Garbarino to allow it to be hand held with no external tubing as taught by Bergner in order to improve portability as desired by Garbarino and eliminate risk of a tube being caught on an object and dislodged during use.

Regarding claim 8, Garbarino as modified by Bergner is silent with respect to the weight of the device. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have limited the weight of the device to less than 5 kilograms to increase portability as desired by both Garbarino and Bergner.

Regarding claims 9 and 10, Garbarino shows a single flow generator (20a, 20b) for each of the chemicals comprised of a set of suction gears for each flow path (Figs. 4 and 5).

Regarding claim 11, Garbarino discloses that the flow generator pumps the chemicals out the containers at different rates Col. 2, ll. 48-57).

Regarding claim 12, Garbarino fails to specifically disclose the chemicals being pumped by the flow generator at a pressure above 5 atmospheres. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have designed the device of Garbarino as modified by Bergner to pump the chemicals at a pressure above 5 atmospheres to permit consistent mixing in the spray gun, especially since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617, F.2d 272, 205, USPQ 215 (CCPA 1980).

Regarding claim 15, Bergner discloses that the mixing chamber (4) is detachably attached to the casing (Col. 2, ll. 53-56, threads). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have manufactured the mixing chamber or Garbarino to be detachably attached to the casing as shown by Bergner to allow for replacement.

Regarding claim 25, Garbarino disclose a pusher (16) to push the chemicals toward an exit.

Regarding claims 41-43, Garbarino as modified by Bergner results in a discharge nozzle coupled to the mixing chamber (Garbarino, Col. 2, ll. 7-9), the flow generator and mixing chamber comprised in a single discharge unit (Garbarino, 20 and 24).

Regarding claims 52 and 53, Garbarino as modified by Bergner results in one or more compartments (1b and 1c of Bergner) enclosed by the casing (Bergner, Fig. 1).

2. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Garbarino in view of Bergner as applied to claim 1 above and further in view of U.S. Patent No. 5,526,957 to Brown et al. (Brown '957).

The Garbarino-Bergner combination shows all aspects of the applicant's invention as set forth in claim 1, but fails to disclose the one or more containers comprising a single container with a plurality of compartments. However, Brown '957 shows a foam dispensing device (10) with a single container (26) holding foam generating components divided into two compartments (128, 130). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have formed the two containers of Garbarino as modified by Bergner as one container with two compartments as taught by Brown '957 in order to save space and material and allow for easy replacement since only one container is replaced each time.

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3. Claims 6, 7, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Garbarino in view of Bergner as applied to claim 1 above and further in view of U.S. Patent No. 6,900,416 to Erik.

The Garbarino-Bergner combination shows all aspects of the applicant's invention as set forth in claim 1, but fails to disclose a base having a recess adapted to removably receive the casing and additional containers. Erik shows a hand held dispensing device (12) and a base (10) having a recess (46) adapted to removably receive the dispensing device and another recess (48) to hold additional containers (14) of multiple sizes (capable of receiving smaller containers) and a heater (56) to heat the chemical in the container. It would have been obvious to one having ordinary skill in the art at the time the invention was made, under the teachings of Erik, to have provided the device of Garbarino as modified by Bergner with a base with a heater to allow for easy transport of the device and spare containers and to maintain the chemicals in a warmed, readily usable condition (Erik, abstract and Col. 2, ll. 3-17).

4. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Garbarino in view Bergner as applied to claim 1 above and further in view of U.S. Patent No. 5,265,761 to Brown (Brown '761).

The Garbarino-Bergner combination shows all aspects of the applicant's invention as set forth in claim 1, but fails to disclose the device including a heater to heat the chemicals flowing from the containers. However, Brown '761 shows a foam dispensing device (Fig. 1) with a heater to heat chemicals flowing from containers in

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order to reduce the amount of cold shot foam released (Col. 10, ll. 36-40). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have manufactured the hoses of Garbarino as modified by Bergner with the heaters of Brown '761 in order to reduce the amount of cold shot foam released.

5. Claims 17 and 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Garbarino in view Bergner as applied to claim 41 above and further in view of U.S. Patent No. 4,568,003 to Sperry et al. (Sperry).

The Garbarino-Bergner combination shows all aspects of the applicant's invention as set forth in claim 41, but fails to disclose the nozzle comprising a material to which foam does not adhere. However, Sperry discloses a foam generating apparatus (Fig. 1) with a detachable mixing chamber (see abstract) comprising components made of a material to which foam does not adhere (Col. 2, ll. 55-60). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have manufactured the device of Garbarino as modified by Bergner with the detachable mixing chamber with non-stick components of Sperry to allow for easy replacement of parts (Col. 2, ll. 15-19) and allow for easy cleaning.

Regarding claim 51, Sperry shows a support arrangement (120) for a casing (110) to permit use of the device in stationary mode (Fig. 1). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have provided the device of Garbarino as modified by Bergner with a support arrangement as taught by Sperry to allow movement and fixing of the dispensing

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apparatus to the desired distance from the object to dispense upon (Sperry, Col. 4, ll. 44-48).

15. Claims 18, 19 and 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Garbarino in view Bergner as applied to claims 1 and 41 above and further in view of FR 2416718 to Viellard.

The Garbarino-Bergner combination shows all aspects of the applicant's invention as set forth in claim 1, but fails to disclose the nozzle and mixing chamber having flexible walls and being expanded by the pressure of streams of chemicals from a zero volume when the flow generator is not operating to a larger volume by the pressure of chemical streams when the flow generator is operating. Viellard shows a dispensing device (Fig. 1) with two containers (1, 2) including a plurality of chemicals (Pg. 1 of translation, Paragraph 2), a flow generator (11, 12) for each container, and a nozzle (31) that includes a mixing chamber (42, 43, 47) with flexible walls (41, 42) that are expanded by the pressure of streams of chemicals from a substantially zero volume when the flow generator is not operating to a larger volume when the flow generator is operating (Pg. 3 of translation and Fig. 5). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have manufactured the foam dispensing device of Garbarino as modified by Bergner with the nozzle of Viellard to improve the mixing of the chemicals (Pg. 3 of translation).

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7. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,981,909 to Freeman in view of U.S. Patent No. 6,558,059 to Hillinger et al. (Hillinger).

Freeman shows a base (10), comprising a niche (14) for receiving a dispensing device (21), a compartment (24) for receiving a container (28) and a heater (22) adapted to heat the contents of the container (Col. 3, ll. 32-40). Freeman fails to show a battery charger. Hillinger shows a base (104) comprising a niche (within 104) for receiving a dispensing device (100) and a battery charger (110) to charge the battery (102) of the dispensing device in the niche. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have manufactured the base of Freeman with a battery charger as taught by Hillinger to improve efficiency by allowing for simultaneous heating of the containers and charging of a battery of a dispensing device.

8. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hillinger in view of U.S. Patent No. 5,779,103 to Massena.

Hillinger shows a base (104) comprising a niche (within 104) for receiving a dispensing device (100) and a battery charger (110) to charge the battery (102) of the dispensing device in the niche. Hillinger fails to show at least one compartment for receiving a container or a heater adapted to heat the contents of the container in the compartment. Massena shows a base (300) comprising at least one compartment (306) for receiving a container (20) and a heater (304) adapted to heat the contents of

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the container in the compartment so that the containers are ready for immediate use (Col. 1, ll. 18-19). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have manufactured the base of Hillinger with heating stand for additional containers as taught by Massena so that replacement containers are readily available and can be used immediately.

9. Claim 37 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hardman in view of U.S. Patent No. 4,974,752 to Sirek.

Hardman shows all aspects of the applicant's invention as set forth in claim 36, but fails to show a heater. Sirek dispensing device (Fig. 1) with a flow generator (29) a container (19) of material and a heater (37) to allow for use during the winter months (Col. 1, ll. 12-19). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have manufactured the base of Hardman with heater as taught by Sirek to allow for use during the winter months.

16. Claims 45-50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Garbarino in view Bergner as applied to claim 1 above and further in view of U.S. Patent No. 5,755,269 to Venooker et al. (Venooker).

The Garbarino-Bergner combination shows all aspects of the applicant's invention as set forth in claim 1, but is silent with respect to the connections on the containers. Venooker shows a dispensing device (Fig. 1) comprising a container (40), a flow element (54), a flow control valve assembly (Fig. 6) coupled to the container that

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prevents flow from the container when a flow element is not coupled to the valve assembly and prevents dripping outside the flow element when the flow element is coupled to the valve assembly (Col. 1, ll. 66-67 and Col. 2, ll. 1-5). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have manufactured the dispensing device of Garbarino as modified by Bergner with the coupling system shown by Venooker since Venooker discloses that such a modification prevent loss of liquid and allows for easy attaching and removal without the need for tools (Venooker, Col. 2, ll. 28-32 and 51-53).

Regarding claims 46-50, Venooker shows that the flow control valve includes a single diaphragm (58) that closes to prevent flow of chemicals when the flow elements and valve assemblies are not coupled (Fig. 6) and surrounds a projection (132, 134) of the flow element when they are coupled (Fig. 5). The diaphragm is pushed into a folded position by the projection to open the valve (Fig. 5).

17. Claim 54 is rejected under 35 U.S.C. 103(a) as being unpatentable over Garbarino in view Bergner as applied to claim 52 above and further in view of U.S. Patent No. 4,790,454 to Clark et al. (Clark).

The Garbarino-Bergner combination shows all aspects of the applicant's invention as set forth in claim 52, but fails to disclose that the containers are located outside the casing. Clark shows a dispensing device (Fig. 1) with two containers (8, 14) including a plurality of chemicals (see abstract), a flow generator (1) for each container, and a nozzle (15) and a casing (16) with a port (30). The containers are located outside

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the casing (Fig. 1). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have manufactured the foam dispensing device of Garbarino as modified by Bergner with the containers located outside the casing as shown by Clark to reduce the size of the device by eliminating the enclosing portion of the casing.

Response to Arguments

11. Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection.

12. Applicant argues that Hardman does not teach the flow generator being included in a single replaceable part. This is not persuasive since the entire device, except for the drill, can be considered a single part capable of being replaced. Since this "part" includes the flow generator, it satisfies the claimed limitations.

13. The applicant asserts that Viellard does not show a mixing chamber that is defined by flexible walls. However, as disclosed in the last paragraph of page 2 of the translation, mixing continues to the end of the nozzle which includes flexible walls on every side of the mixing chamber.

14. The applicant argues that there is no need for a battery charger in the Freeman base device since caulk guns are not typically electrically operated. However, U.S. Patents 5762239, 6123235, 6089407, 5450988 all show battery operated caulk guns. The applicant further argues that a battery is not sufficient to power the Freeman device. The examiner is not suggesting replacing the electrical connection of the device

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with a battery, but rather, under the teachings of Hillinger to include a battery charger in the niche so that a battery powered caulk gun can be charged and have its caulk warmed simultaneously. This improves efficiency in the sense that one device performs both functions and dismantling the caulk gun is not needed to perform the functions.

Conclusion

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANIEL R. SHEARER whose telephone number is (571)270-7416. The examiner can normally be reached on Monday through Friday 8:30 AM to 5:00 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Shaver can be reached on (571)272-4720. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/D. R. S./
Examiner, Art Unit 3754

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